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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,121

Applicant(s)

BYRNE ET AL.

Examiner

Md S Elahee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/29/03 have been fully considered but they are not persuasive.

Regarding claim 1, The Applicant argues on page 11, lines 6-11 that "Surace, taken alone or in combination, does not teach or suggest a method for providing a voice user interface that interacts with a user at a first level of formality, monitoring a history of user interaction with the voice user interface, and adjusting the voice user interface to interact with the user with a second level of formality based on the history of user interaction". Surace does teach providing a voice user interface that interacts with a user at a first voice (i.e., first level of formality) (abstract; col.2, lines 1-11; 'first voice' reads on the claim 'first level of formality'), user's interactions (i.e., monitoring a history of user interaction) with the voice user interface (abstract; col.2, lines 1-11), customizing (i.e., adjusting) the voice user interface (col.8, lines 25-27) and voice user interface outputs the selected prompt to the subscriber based on the execution of the appropriate rules (col.17, lines 42-67, col.18, lines 1-23). Thus the rejection of the claim in view of Surace remain.

Regarding claim 19, The Applicant argues on page 11, lines 12-18 that "Surace, taken alone or in combination, does not teach or suggest a method for providing a voice user interface services which includes providing a user with an interactive voice user interface, monitoring the interaction of the user with the voice user interface to determine a user experience level and providing the user with an extended menu of options, if the

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user experience level has not reached a predetermined threshold”. Surace does teach providing a user with a voice user interface (abstract; col.2, lines 1-11), the interaction of the user (i.e., monitoring the interaction of the user’) with the voice user interface (abstract; col.2, lines 1-11), selecting (i.e., determining) user experience with the voice user interface (abstract; col.2, lines 1-11) and selecting (i.e., providing the user) lengthened prompt (i.e., extended menu of options) based on a user’s experience (i.e., if the user experience level has not reached a predetermined threshold) (col.2, lines 1-11). Thus the rejection of the claim in view of Surace remain.

Regarding claim 10, The Applicant argues on page 12, lines 5-9 that ““Kuo, taken alone or in combination, does not teach or suggest a method for providing a voice user interface services which includes providing a user with an interactive voice user interface, monitoring the interaction of the user with the voice user interface to determine a user experience level and providing the user with an extended menu of options, if the user experience level has not reached a predetermined threshold”. Kuo does teach generating (i.e., creating) a user profile having preference information for a user (col.5, lines 10-28) and allowing (i.e., providing) an agent (i.e., virtual host) with a personal information (i.e., consistent personality) defined in accordance with the user profile (col.5, lines 10-28). Thus the rejection of the claim in view of Kuo remain.

Regarding claim 33, The Applicant argues on page 13, lines 22-29 that “Surace, Zawadzki, and Rhie, taken alone or in combination, does not teach or suggest a method of providing a user with a first option to visit one of a plurality of domains by uttering a voice command associated with one of the plurality of domains, the plurality of domains contained in an ordered data structure, each domain comprising respective content

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available for presentation to the user, visiting a first one of the plurality of domains automatically, if no response is provided by the user for the first option, providing the user with a second option to hear content of the first domain and playing the content of the first domain, if no response is provided by the user to the second option". Surace does teach allowing a subscriber to access various www content (i.e., providing a user with a first option to visit one of a plurality of domains) via telephones (i.e., by uttering a voice command associated with one of the plurality of domains) and each WWW content (i.e., domain) comprising content (i.e., respective content available for presentation to the user) (col.15, lines 63-67, col.16, lines 1-35) and Zawadzki does teach the domain tree (i.e., plurality of domains) being contained in data structure (abstract; col.2, lines 23-62), furthermore, Surace teaches accessing (i.e., visiting) the www content via telephones (i.e., a first one of the plurality of domains automatically, if no response is provided by the user for the first option') (col.15, lines 63-67, col.16, lines 1-35) and Rhie does teach providing the caller (i.e., user with a second option) inherently to hear voice segments of retrieved web pages (i.e., content of the first domain) (col.3, lines 61-67, col.4, lines 1-20) and playing voice segments of retrieved web pages or documents to the caller (i.e., the content of the first domain, if no response is provided by the user to the second option) (col.3, lines 61-67, col.4, lines 1-20). Thus the rejection of the claim in view of Surace, Zawadzki and Rhie remain.

Regarding claim 47, The Applicant argues on page 15, lines 3-20 that "Surace, Zawadzki, Rhie, Kuo, Hemphill and Ito, taken alone or in combination, does not teach or suggest a voice user interface system which includes an ordered data structure including one or more domains, each domain associated with content belonging to one or more

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categories, a grammar for accessing content from the ordered data structure, the grammar includes vocabulary comprising a plurality of terms, at least one term associated with at least one respective domain and a set of rules for visiting said one or more domains or for playing content therein, each rule corresponding to one or more respective terms; and a user profile which includes a user preference log for storing information about a user's preferences for accessing content in said one or more domains and a user interaction history log for storing information about the user's history of interaction with the system, wherein a command provided at a recognition instance is processed against the terms included in the vocabulary for recognition, and if a match is found between the command and a term, then the respective domains in the ordered data structure are visited and the content of the respective domains is played in accordance with the rule corresponding to the matched term, using a conversational style that dynamically changes based on information included in the user profile". Surace does teach a voice user interface including one or more WWW contents (i.e., domains), each WWW content associated with content (i.e., content belonging to one or more categories) (col.15, lines 63-67, col.16, lines 1-35) and Zawadzki does teach data structure including one or more domains (abstract; col.2, lines 23-62), further teach inherently a grammar for generating (i.e., accessing) specs (i.e., content) from data structure (abstract; col.2, lines 23-62). Hemphill does teach vocabulary comprising a plurality of phrases (i.e., terms), at least one phrase inherently associated with at least one respective World Wide Web (i.e., domain) (col.1, lines 44-67; col. 3, lines 46-65). Rhie does teach providing the caller (i.e., user with a second option) inherently to hear voice segments of retrieved web pages (i.e., content of the first domain) (col.3, lines 61-67, col.4, lines 1-20), further does teach

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inherently a set of rules for playing voice segments of retrieved web pages or documents to the caller (i.e., content therein, each rule corresponding to one or more respective terms) (col.3, lines 61-67, col.4, lines 1-20). Kuo does teach a user profile (i.e., user profile comprising a user preference log) for storing preference information for a user (i.e., information about a user's preferences for accessing content in said one or more domains) (col.5, lines 10-28). Hemphill does teach a command provided at a recognition instance is inherently processed against the phrases (i.e., terms) included in the vocabulary for recognition, and if a match is found between the command and a phrase, then the respective World Wide Web (i.e., domain in the ordered data structure) are visited (col.1, lines 44-67; col. 3, lines 29-65). Rhie does teach that the voice segments of retrieved web pages or documents (i.e., content of the respective domains) are played (i.e., played in accordance with the rule corresponding to the matched term) (col.3, lines 61-67, col.4, lines 1-20). Ito does teach that the conversational-type is adjusted (i.e., dynamically changes based on information included in the user profile) (col.4, lines 24-64). Thus the rejection of the claim in view of Surace, Zawadzki, Rhie, Kuo, Hemphill and Ito remain.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore the examiner has given the claim language its broadest reasonable interpretation. Since applicants have not argued any dependent claims, they stand or fall with the independent claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 8, 9 and 19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Surace et al. (U.S. Patent No. 6,334,103).

Regarding claim 1, Surace teaches providing a voice user interface that interacts with a user at a first voice (abstract; col.2, lines 1-11; ‘first voice’ reads on the claim ‘first level of formality’).

Surace further teaches user’s interactions with the voice user interface (abstract; col.2, lines 1-11; ‘user’s interactions’ reads on the claim ‘monitoring a history of user interaction’).

Surace further teaches inherently adjusting the voice user interface (abstract; col.2, lines 1-11, col.17, lines 42-67, col.18, lines 1-23).

Surace further teaches voice user interface outputs the selected prompt to the subscriber based on the execution of the appropriate rules (col.17, lines 42-67, col.18, lines 1-23; ‘outputs the selected prompt to the subscriber’ reads on the claim ‘interact with the user with a second level of formality’ and ‘the execution of the appropriate rules’ reads on the claim ‘the history of user interaction’).

Regarding claim 2, Surace teaches that the voice user interface is inherently adjusted (abstract; col.2, lines 1-11, col.17, lines 42-67, col.18, lines 1-23).

Surace further teaches that a voice user interface interacts with a user at a first voice (abstract; col.2, lines 1-11; 'first voice' reads on the claim 'a less formal manner as the history of user interaction increases').

Regarding claim 3, Surace teaches user's interactions with the voice user interface (abstract; col.2, lines 1-11; 'user's interactions' reads on the claim 'monitoring the user's interaction').

Surace further teaches the user's interaction with the voice user interface during a selected prompt (col.1, lines 61-67, col.2, lines 1-11; 'selected prompt' reads on the claim 'single interactive session').

Regarding claim 4, Surace teaches user's interactions with the voice user interface (abstract; col.2, lines 1-11; 'user's interactions' reads on the claim 'monitoring the user's interaction').

Surace further teaches the user's interaction with the voice user interface during selected polite prompts (col.1, lines 61-67, col.2, lines 1-11; 'selected polite prompts' reads on the claim 'multiple interactive sessions').

Regarding claim 8, Surace teaches that the second voice inherently provides a more intimate relationship between the user and the voice user interface (abstract; col.2, lines 1-11; 'second voice' reads on the claim 'second level of formality').

Regarding claim 9, Surace teaches that the second voice is inherently less formal than the first voice (abstract; col.2, lines 1-11; 'second voice' reads on the claim 'second level of formality' and 'first voice' reads on the claim 'first level of formality').

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Regarding claim 19, Surace teaches providing a user with a voice user interface (abstract; col.2, lines 1-11; 'voice user interface' reads on the claim 'interactive voice user interface').

Surace further teaches the interaction of the user with the voice user interface (abstract; col.2, lines 1-11; 'the interaction of the user' reads on the claim 'monitoring the interaction of the user').

Surace further teaches selecting user experience with the voice user interface (abstract; col.2, lines 1-11; 'selecting' reads on the claim 'determining' and 'user experience' reads on the claim 'a history of user experience').

Surace further teaches selecting lengthened prompt based on a user's experience (col.2, lines 1-11; 'selecting' reads on the claim 'providing the user', 'lengthened prompt' reads on the claim 'extended menu of options' and 'based on a user's experience' reads on the claim 'if the user experience level has not reached a predetermined threshold').

Regarding claim 20, Surace further teaches selecting shortened prompt based on a user's experience (col.2, lines 1-11; 'selecting' reads on the claim 'providing the user', 'shortened prompt' reads on the claim 'shortened menu of options' and 'based on a user's experience' reads on the claim 'if the user experience level has reached a predetermined threshold').

Regarding claim 21, Surace further teaches playing a list of content (col.15, lines 63-67, col.16, lines 1-35; 'content' reads on the claim 'content domains').

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Surace further teaches prompting the user to select a content from the list to access various WWW content (col.15, lines 63-67, col.16, lines 1-35; 'content' reads on the claim 'content domain' and 'access various WWW content' reads on the claim 'visit one of said content domains').

Regarding claim 22, Surace further teaches prompting the user to provide a command associated with one or more content from the list to access various WWW content (col.4, lines 25-36, col.15, lines 63-67, col.16, lines 1-35; 'content' reads on the claim 'content domain' and 'access various WWW content' reads on the claim 'visit one of said content domains').

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Kuo et al. (U.S. Patent No. 6,418,440).

Regarding claim 10, Kuo teaches generating a user profile having preference information for a user (col.5, lines 10-28; 'generating' reads on the claim 'creating').

Kuo further teaches allowing an agent with a personal information defined in accordance with the user profile (col.5, lines 10-28; 'allowing' reads on the claim

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'providing', 'agent' reads on the claim 'virtual host' and 'personal information' reads on the claim 'consistent personality').

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of White (U.S. Patent No. 5,896,530).

Regarding claim 5, Surace teaches the user interacting with the voice user interface (col.1, lines 61-67, col.2, lines 1-11). However, Surace fails to teach "user interaction level based on time spent". White teaches user interaction based on time (col.17, lines 29-59; 'interaction' reads on the claim 'interaction level' and 'time' reads on the claim 'time spent'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow user interaction level based on time as taught by White. The motivation for the modification is to have the user interaction level based on time in order to provide the amount of the interaction for a specific period of time.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Watanabe et al. (U.S. Pub. No. 0087321).

Regarding claim 6, Surace teaches the user interacting with the voice user interface (col.1, lines 61-67, col.2, lines 1-11). However, Surace fails to teach "user interaction level based on a number of interactions". Watanabe teaches user interaction

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based on the number of accesses to the interaction engine (page 2, paragraph 0023; 'number of accesses to the interaction engine' reads on the claim 'number of interactions'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow user interaction level based on a number of interactions as taught by Watanabe. The motivation for the modification is to have the user interaction level based on a number of interactions in order to provide the amount of the interactions the user might have.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Larose et al. (U.S. Patent No. 6,108,420).

Regarding claim 7, Surace fails to teach "recording information about user interactions with the voice user interface in a user interface history log". Larose teaches recording user information collected by the user interaction program in a database (col.6, lines 11-27; 'user information collected by the user interaction program' reads on the claim 'information about user interactions with the voice user interface' and 'database' reads on the claim 'user interface history log'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow recording information about user interactions as taught by Larose. The motivation for the modification is to have the recording information about user interactions in order to provide the current status of the interactions the user might have.

Surace further teaches updating the history preserved in non-volatile memory as the subscriber continues to interact with the voice user interface (col.13, lines 58-67, col.14, lines 1-10; 'history' reads on the claim 'information', 'preserved' reads on the claim 'recorded' and 'subscriber' reads on the claim 'user').

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10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Staples et al. (U.S. Patent No. 6,301,339).

Regarding claim 11, Kuo fails to teach "information defining a tone of voice for the virtual host". Staples teaches information specifying the tones for the client software (col.41, lines 48-67, col.42, lines 1-10; 'specifying' reads on the claim 'defining', 'the tones' reads on the claim 'a tone of voice' and 'client software' reads on the claim 'virtual host'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow information defining a tone of voice as taught by Staples. The motivation for the modification is to have the information defining a tone of voice in order to provide the specific characteristic.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Sakurai et al. (U.S. Patent No. 5,189,702).

Regarding claim 12, Kuo fails to teach "information defining a speed of voice for the virtual host". Sakurai teaches information enabling a speed of voice for the host equipment (col.3, lines 33-49; 'enabling' reads on the claim 'defining' and 'host equipment' reads on the claim 'virtual host'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow information defining a speed of voice as taught by Sakurai. The motivation for the modification is to have the information defining a speed of voice in order to provide the specific characteristic.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Eikeland (U.S. Patent No. 5,768,508).

Regarding claim 13, Kuo fails to teach "information defining a background for the virtual host". Eikeland teaches information defining a background for the client (col.7, lines 58-67, col.8, lines 37-40; 'client' reads on the claim 'virtual host'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow information defining a background as taught by Eikeland. The motivation for the modification is to have the information defining a background in order to provide the specific characteristic.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Duffy et al. (U.S. Patent No. 5,911,043).

Regarding claim 14, Kuo fails to teach "information defining a sex for the virtual host". Duffy teaches information defining a sex for the user (col.1, lines 63-67, col.2, lines 1-12; 'user' reads on the claim 'virtual host'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow information defining a sex as taught by Duffy. The motivation for the modification is to have the information defining a sex in order to provide the specific characteristic.

14. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Bijl et al. (U.S. Patent No. 6,366,882).

Regarding claim 15, Kuo fails to teach "information defining an accent for the virtual host". Bijl teaches information defining an accent for the user (col.14, lines 6-13; 'user' reads on the claim 'virtual host'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow

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information defining an accent as taught by Bijl. The motivation for the modification is to have the information defining an accent in order to provide the specific characteristic.

15. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Wigan et al. (U.S. Patent No. 4,531,184).

Regarding claim 16, Kuo fails to teach "information defining a conversational style for the virtual host". Wigan teaches information defining a conversational facility for the subscriber (col.31, lines 32-67, col.32, lines 1-67, col.33, lines 1-67, col.34, lines 1-3; 'facility' reads on the claim 'style' and 'subscriber' reads on the claim 'virtual host'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow information defining a conversational style as taught by Wigan. The motivation for the modification is to have the information defining a conversational style in order to provide the specific characteristic.

16. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al. (U.S. Patent No. 6,418,440) and in view of Wigan et al. (U.S. Patent No. 4,531,184) and further in view of Surace et al. (U.S. Patent No. 6,334,103) and further in view of Ito (U.S. Patent No. 5,029,085).

Regarding claim 17, Kuo in view of Wigan fails to teach "determining a history of user experience with the voice user interface". Surace teaches selecting user experience with the voice user interface (abstract; col.2, lines 1-11; 'selecting' reads on the claim 'determining' and 'user experience' reads on the claim 'a history of user experience'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo in view of Wigan to allow determining a history of

user experience as taught by Surace. The motivation for the modification is to have the determination in order to provide the specific prompt.

Kuo in view of Wigan further in view of Surace fails to teach “adjusting the conversational style based on the history of user experience”. Ito teaches adjusting the conversational-type (col.4, lines 24-64; ‘conversational-type’ reads on the claim ‘conversational style based on the history of user experience’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo in view of Wigan further in view of Surace to allow adjusting the conversational style as taught by Ito. The motivation for the modification is to have the adjustment in order to provide the modification of the talking mode.

Regarding claim 18, Kuo fails to teach “the conversational style is associated with a formality level”. Wigan teaches the conversational facility is inherently associated with a formality level (col.31, lines 32-67, col.32, lines 1-67, col.33, lines 1-67, col.34, lines 1-3; ‘facility’ reads on the claim ‘style’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo to allow the association with a formality level as taught by Wigan. The motivation for the modification is to have the association in order to provide the level of interaction.

Kuo in view of Wigan further in view of Surace fails to teach “adjusting comprises reducing the formality level as the history of user experience increases”. Ito teaches adjusting inherently comprising reducing the formality level as the history of user experience increases the conversational-type (col.4, lines 24-64). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuo in view of Wigan further in view of Surace to allow reducing the formality

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level as taught by Ito. The motivation for the modification is to have the reduction in order to provide the reduction of the level of interaction.

17. Claims 23-26, 28, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Kuo et al. (U.S. Patent No. 6,418,440).

Regarding claim 23, Surace teaches a voice user interface including one or more WWW content, each WWW content associated with respective content (col.15, lines 63-67, col.16, lines 1-35; 'WWW content' reads on the claim 'domains' and 'WWW content' reads on the claim 'domain'). However, Surace fails to teach "an ordered data structure including one or more domains". Zawadzki teaches data structure including one or more domains (abstract; col.2, lines 23-62; 'data structure' reads on the claim 'an ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow ordered data structure as taught by Zawadzki. The motivation for the modification is to have the ordered data structure in order to provide an option to visit each of the domains in an order.

Surace further fails to teach "a grammar for accessing content from the ordered data structure". Zawadzki teaches inherently a grammar for generating specs from data structure (abstract; col.2, lines 23-62; 'generating' reads on the claim 'accessing', 'specs' reads on the claim 'content' and 'data structure' reads on the claim 'an ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow a grammar for accessing content as

taught by Zawadzki. The motivation for the modification is to have the grammar for accessing content in order to provide an option to visit each of the content of domains in an order.

Surace in view of Zawadzki further fails to teach "a user profile for storing information about a user's preferences and history of interaction with the system". Kuo teaches a user profile for storing preference information for a user (col.5, lines 10-28; 'preference information for a user' reads on the claim 'information about a user's preferences and history of interaction with the system'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow a user profile for storing information as taught by Kuo. The motivation for the modification is to have the user profile for storing information in order to provide the information to the user whenever needed.

Surace in view of Zawadzki further fails to teach "the grammar dynamically changes based on the information stored in the user profile to provide a natural interaction experience for the user". Kuo teaches inherently the grammar dynamically updates based on the information stored in the user profile to provide a requested services and information for the user (col.5, lines 10-28, col.6, lines 30-67; 'updates' reads on the claim 'changes' and 'requested services and information' reads on the claim 'natural interaction experience'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow the grammar dynamically updating based on the information as taught by Kuo. The

motivation for the modification is to have the update in order to provide the information efficiently to the user whenever needed.

Regarding claim 24, Surace further fails to teach “accessing content from the ordered data structure”. Zawadzki teaches generating specs from data structure (abstract; col.2, lines 23-62; ‘generating’ reads on the claim ‘accessing’, ‘specs’ reads on the claim ‘content’ and ‘data structure’ reads on the claim ‘an ordered data structure’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow a grammar for accessing content as taught by Zawadzki. The motivation for the modification is to have the grammar for accessing content in order to provide an option to visit each of the content of domains in an order.

Surace in view of Zawadzki further fails to teach “one or more virtual hosts for interacting with a user”. Kuo further teaches an agent for interacting with a user (col.2, lines 6-40, col.5, lines 10-28; ‘agent’ reads on the claim ‘one or more virtual host’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow one or more virtual hosts for interacting with a user as taught by Kuo. The motivation for the modification is to have the interaction in order to provide the dialogue session.

Regarding claim 25, Surace in view of Zawadzki further fails to teach “the user has an option of selecting from said one or more virtual hosts”. Kuo further teaches that the user has an option of inherently selecting an agent (col.2, lines 6-40, col.5, lines 10-28; ‘agent’ reads on the claim ‘one or more virtual host’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in

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view of Zawadzki to select one or more virtual hosts as taught by Kuo. The motivation for the modification is to have the selection in order to have the specific information.

Regarding claim 26, Surace in view of Zawadzki fails to teach “one or more virtual hosts each has a respective personality based on the information stored in the user profile”. Kuo further teaches that an agent has certain pieces of personal information (col.2, lines 6-40, col.5, lines 10-28; ‘agent’ reads on the claim ‘one or more virtual host’ and ‘certain pieces of personal information’ reads on the claim ‘respective personality based on the information stored in the user profile’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to select one or more virtual hosts as taught by Kuo. The motivation for the modification is to have the selection in order to have the specific information.

Regarding claim 28, Surace in view of Zawadzki further fails to teach “user profile includes information about a user's experience level in interacting with the system”. Kuo teaches a user profile for including preference information for a user in interacting with the system (col.6, lines 30-67; ‘preference information for a user’ reads on the claim ‘information about a user's experience level’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow a user profile for including information as taught by Kuo. The motivation for the modification is to have the user profile for including information in order to provide the user behavior.

Regarding claim 31, Surace teaches that the computer system interacts with a user at a second voice (abstract; col.1, lines 61-67, col.2, lines 1-11; ‘the computer system’

reads on the claim 'the system' and 'second voice' reads on the claim 'a relatively formal manner, unless the user's experience level is above a predetermined threshold').

Regarding claim 32, Surace teaches that the computer system interacts with a user at a first voice (abstract; col.1, lines 61-67, col.2, lines 1-11; 'the computer system' reads on the claim 'the system' and 'first voice' reads on the claim 'a less formal manner as the user's experience level increases').

18. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Kuo et al. (U.S. Patent No. 6,418,440) and further in view of Wigan et al. (U.S. Patent No. 4,531,184) and further in view of Ito (U.S. Patent No. 5,029,085).

Regarding claim 27, Surace in view of Zawadzki further in view of Kuo fails to teach "one or more virtual hosts each has a respective conversational style based on the user profile information". Wigan teaches that the subscriber has a conversational facility (col.31, lines 32-67, col.32, lines 1-67, col.33, lines 1-67, col.34, lines 1-3; 'subscriber' reads on the claim 'one or more virtual host' and 'conversational facility' reads on the claim 'respective conversational style based on the user profile information'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Kuo to allow a respective conversational style as taught by Wigan. The motivation for the modification is to have the respective conversational style in order to provide the specific characteristic.

Surace in view of Zawadzki fails to teach "the user may update the user profile information". Kuo further teaches that the user may update the user profile (col.6, lines

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30-67, col.7, lines 1-6; 'profile' reads on the claim 'profile information'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to update the user profile information as taught by Kuo. The motivation for the modification is to have the update in order to have the modified information.

However, Surace in view of Zawadzki further in view of Kuo further in view of Wigan further fails to teach "modify the respective conversational style of said one or more virtual hosts". Ito teaches adjusting the conversational-type (col.4, lines 24-64; 'adjusting' reads on the claim 'modify' and 'conversational-type' reads on the claim 'the respective conversational style of said one or more virtual hosts'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Kuo further in view of Wigan to allow modifying the conversational style as taught by Ito. The motivation for the modification is to have the modification in order to provide the adjustment of the talking mode.

19. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Kuo et al. (U.S. Patent No. 6,418,440) and further in view of Setogawa et al. (U.S. Patent No. 6,424,793).

Regarding claim 29, Surace in view of Zawadzki further fails to teach "dynamically changes based on the user's experience level". Kuo teaches inherently the dynamically updates based on the information stored in the user profile (col.5, lines 10-28, col.6, lines 30-67; 'updates' reads on the claim 'changes' and 'information stored in

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the user profile' reads on the claim 'user's experience level'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow the grammar dynamically updating based on the information as taught by Kuo. The motivation for the modification is to have the update in order to provide the information efficiently to the user whenever needed.

Surace in view of Zawadzki further in view of Kuo further fails to teach "an interactive menu associated with said one or more domains". Setogawa teaches an interactive menu associated with the one or more domains (col.6, lines 37-46, col.8, lines 9-24). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Kuo to allow an interactive menu as taught by Setogawa. The motivation for the modification is to have the interactive menu in order to control the user behavior.

20. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Kuo et al. (U.S. Patent No. 6,418,440) and further in view of Setogawa et al. (U.S. Patent No. 6,424,793) and further in view of Smith, Jr. et al. (U.S. Patent No. 6,490,343)

Regarding claim 30, Surace in view of Zawadzki further in view of Kuo further in view of Setogawa fails to teach "the interactive menu includes a plurality of prompts for delivery to the user". Smith teaches the interactive menu system including the menu prompts for delivery to the hearing-impaired person (col.1, lines 55-67, col.4, lines 6-47, col.7, lines 49-67, col.8, lines 1-15; 'interactive menu system' reads on the claim 'interactive menu', 'menu prompts' reads on the claim 'a plurality of prompts' and

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'hearing-impaired person' reads on the claim 'user'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Kuo further in view of Setogawa to allow the interactive menu as taught by Smith. The motivation for the modification is to have the interactive menu in order to communicate with the user without communicating directly with another person.

Surace further teaches a lengthened or shortened prompt based on a user's experience (col.1, lines 61-67, col.2, lines 1-11; 'a lengthened or shortened prompt' reads on the claim 'each having a respective length, and wherein any prompt delivered to the user' and 'based' reads on the claim 'depends').

21. Claims 33, 35-38, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Rhie et al. (U.S. Patent No. 5,953,392).

Regarding claim 33, Surace teaches allowing a subscriber to access various www content via telephones and each WWW content comprising content (col.15, lines 63-67, col.16, lines 1-35; 'allowing a subscriber to access various www content' reads on the claim 'providing a user with a first option to visit one of a plurality of domains', 'via telephones' reads on the claim 'by uttering a voice command associated with one of the plurality of domains', 'WWW content' reads on the claim 'domain' and 'content' reads on the claim 'respective content available for presentation to the user'). However, Surace fails to teach "the plurality of domains contained in an ordered data structure". Zawadzki

teaches the domain tree being contained in data structure (abstract; col.2, lines 23-62; 'domain tree' reads on the claim 'plurality of domains' and 'data structure' reads on the claim 'an ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow ordered data structure as taught by Zawadzki. The motivation for the modification is to have the ordered data structure in order to provide an option to visit each of the domains in an order.

Surace further teaches accessing the www content via telephones (col.15, lines 63-67, col.16, lines 1-35; 'accessing' reads on the claim 'visiting' and 'the www content via telephones' reads on the claim 'a first one of the plurality of domains automatically, if no response is provided by the user for the first option').

Surace in view of Zawadzki further fails to teach "providing the user with a second option to hear content of the first domain". Rhie teaches providing the caller inherently to hear voice segments of retrieved web pages (col.3, lines 61-67, col.4, lines 1-20; 'caller' reads on the claim 'user with a second option' and 'voice segments of retrieved web pages' reads on the claim 'content of the first domain'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow the user to hear content as taught by Rhie. The motivation for the modification is to have the hearing option in order to get the content of domains.

Surace in view of Zawadzki further fails to teach "playing the content of the first domain, if no response is provided by the user to the second option". Rhie teaches

playing voice segments of retrieved web pages or documents to the caller (col.3, lines 61-67, col.4, lines 1-20; 'voice segments of retrieved web pages or documents to the caller' reads on the claim 'the content of the first domain, if no response is provided by the user to the second option'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow the playing the content of the first domain as taught by Rhie. The motivation for the modification is to have the playing option in order to provide the content of domains.

Regarding claim 35, Surace teaches the www content being accessed (col.15, lines 63-67, col.16, lines 1-35; 'the www content' reads on the claim 'the plurality of domains' and 'accessed' reads on the claim 'visited in an order defined by frequency of prior visits by the user to each domain').

Regarding claim 36, Surace teaches that www content inherently being accessed most frequently during prior accessed being accessed first (col.15, lines 63-67, col.16, lines 1-35; 'www content' reads on the claim 'domains' and 'accessed' reads on the claim 'visited').

Regarding claim 37, Surace teaches that www content inherently being accessed least frequently during prior accessed being accessed first (col.15, lines 63-67, col.16, lines 1-35; 'www content' reads on the claim 'domains' and 'accessed' reads on the claim 'visited').

Regarding claim 38, Surace in view of Zawadzki further fails to teach "playing the content of a second domain after playing the content of the first domain, unless the user

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provides a response to the contrary". Rhie teaches playing voice segments of retrieved web pages or documents to the caller (col.3, lines 61-67, col.4, lines 1-20; 'voice segments of retrieved web pages or documents to the caller' reads on the claim 'the content of a second domain after playing the content of the first domain, unless the user provides a response to the contrary'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow the playing the content of the second domain as taught by Rhie. The motivation for the modification is to have the playing option in order to provide the content of domains to the user.

Regarding claim 44, Surace further teaches inherently determining user's experience in interacting with the voice user interface (col.2, lines 1-11; 'user's experience' reads on the claim 'a history of user experience').

Surace further teaches playing one of the prompts with the generic name for the greetings (col.15, lines 29-67; 'one of the prompts with the generic name for the greetings' reads on the claim 'a first prompt at a first formality level, if the history of user experience reaches a predetermined threshold').

Surace further teaches playing a longer prompt, the voice interface with personality consults prompt history (col.15, lines 29-67; 'a longer prompt, the voice interface with personality consults prompt history' reads on the claim 'a second prompt at a second formality level if the history of user experience does not reach the predetermined threshold').

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Regarding claim 45, Surace teaches inherently determining user's experience in interacting with the voice user interface, wherein the first option is not provided to the user if the user's experience reaches a predetermined threshold (col.2, lines 1-11; 'user's experience' reads on the claim 'history of user experience').

22. Claims 34 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Kuo et al. (U.S. Patent No. 6,418,440).

Regarding claim 34, Surace teaches the www content being accessed (col.15, lines 63-67, col.16, lines 1-35; 'the www content' reads on the claim 'the plurality of domains' and 'accessed' reads on the claim 'visited in an order'). However, Surace in view of Zawadzki further in view of Rhie fails to teach "user preference information recorded in a user profile". Kuo teaches preference information for a user being stored a user profile (col.5, lines 10-28; 'preference information for a user' reads on the claim 'user preference information'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow a user profile for storing information as taught by Kuo. The motivation for the modification is to have the user profile for storing information in order to provide the information to the user whenever needed.

Regarding claim 46, Surace teaches displaying user interaction with the voice user interface (col.5, lines 1-24; 'displaying' reads on the claim 'monitoring').

Surace in view of Zawadzki further in view of Rhie fails to teach "recording in a profile a history of the user interaction". Kuo teaches storing in a user profile preference

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information for a user (col.5, lines 10-28; 'preference information for a user' reads on the claim 'a history of the user interaction'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow recording in a profile as taught by Kuo. The motivation for the modification is to have the user profile for recording in order to store the information for later retrieval.

Surace further teaches modifying the voice user interface with personality based on the user's experience (col.2, lines 1-11, col.8, lines 12-67, col.9, lines 1-28; 'the voice user interface with personality' reads on the claim 'a behavior of the voice user interface and 'user's experience' reads on the claim 'history to provide an interface ambiance emulating a natural conversational style').

23. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Obuchi (JP Pub. No. 2002-041834).

Regarding claim 39, Surace in view of Zawadzki further in view of Rhie fails to teach "visiting the sub-domain of the first domain automatically, unless a response is provided by the user to the contrary". Obuchi teaches accessing the sub-domain by the user (abstract; 'accessing' reads on the claim 'visiting' and 'sub-domain' reads on the claim 'sub-domain of the first domain automatically, unless a response is provided by the user to the contrary'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow the user visiting the sub-domain as taught by Obuchi. The motivation for

the modification is to have the visiting the sub-domain option in order to get the required information for the user.

24. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Sampson et al. (U.S. Patent No. 6,339,423).

Regarding claim 40, Surace in view of Zawadzki further in view of Rhie fails to teach “receiving a user request to visit a second domain, the user request containing a term associated with the second domain”. Sampson teaches receiving a client user request to access a second domain, the user request containing a resource in the second domain (abstract; col. 2, lines 53-67, col.3, lines 1-42; ‘client’ reads on the claim ‘user’, ‘access’ reads on the claim ‘visit’ and ‘resource in the second domain’ reads on the claim ‘term associated with the second domain’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow receiving a user request to visit a second domain as taught by Sampson. The motivation for the modification is to have the receiving a user request to visit a second domain in order to get the required information for the user.

Surace in view of Zawadzki further in view of Rhie fails to teach “visiting the second domain in response to the user request, if the user request is recognized in accordance with an interface grammar having a vocabulary which includes the term”. Sampson teaches accessing the second domain in response to the client request, if the client request is authenticated in accordance with a resource (abstract; col. 2, lines 53-67,

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col.3, lines 1-42; 'accessing' reads on the claim 'visiting', 'client' reads on the claim 'user', 'authenticated' reads on the claim 'recognized' and 'resource' reads on the claim 'interface grammar having a vocabulary which includes the term'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow visiting the second domain in response to the user request as taught by Sampson. The motivation for the modification is to have the receiving a user request to visit a second domain in order to get the required information for the user.

Regarding claim 41, Surace in view of Zawadzki further in view of Rhie fails to teach "providing the user with a list of one or more of the plurality of domains, if the user request is not recognized". Sampson teaches providing the user with a multi-domain, if the user request is not authenticated (col. 4, lines 35-67, col.5, lines 1-45; 'multi-domain access' reads on the claim 'list of one or more of the plurality of domains' and 'authenticated' reads on the claim 'recognized'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow providing the user with a list of one or more of the plurality of domains as taught by Sampson. The motivation for the modification is to have the list of one or more of the plurality of domains in order to get the required information for the user.

Regarding claim 42, Surace in view of Zawadzki further in view of Rhie fails to teach "determining a reason for not recognizing the user request, if the user request is not recognized in accordance with the interface grammar". Sampson teaches determining whether the user is authorized passing the resource requested (col. 4, lines 35-67, col.5,

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lines 1-45; 'whether the user is authorized passing the resource requested' reads on the claim 'a reason for not recognizing the user request, if the user request is not recognized in accordance with the interface grammar'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie to allow determining a reason for not recognizing the user request as taught by Sampson. The motivation for the modification is to have the determination in order to verify whether the user is authorized to access the resource.

25. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Sampson et al. (U.S. Patent No. 6,339,423) and further in view of Kanevsky et al. (U.S. Patent No. 6,442,519).

Regarding claim 43, Surace in view of Zawadzki further in view of Rhie further in view of Sampson fails to teach "adding the acoustic model associated with the user request to the vocabulary, if the request is improperly not recognized". Kanevsky teaches modifying user acoustic model components for adding new words to the acoustic vocabulary model (fig.3; col. 7, lines 19-67, col.8, lines 1-8; 'modifying user acoustic model components' reads on the claim 'adding the acoustic model', 'for adding' reads on the claim 'associated with' and 'new words to the acoustic vocabulary' reads on the claim 'the user request to the vocabulary, if the request is improperly not recognized'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie further in view of Sampson to allow adding the acoustic model associated with the user request as taught by

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Kanevsky. The motivation for the modification is to have the adding acoustic model in order to adapt any additional data produced by the user.

26. Claims 47, 52, 53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Hemphill (U.S. Patent No. 5,774,628) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Kuo et al. (U.S. Patent No. 6,418,440) and further in view of Ito (U.S. Patent No. 5,029,085).

Regarding claim 47, Surace teaches a voice user interface including one or more WWW content, each WWW content associated with content (col.15, lines 63-67, col.16, lines 1-35; 'WWW content' reads on the claim 'domains', 'WWW content' reads on the claim 'domain' and 'content' reads on the claim 'content belonging to one or more categories'). However, Surace fails to teach "an ordered data structure including one or more domains". Zawadzki teaches data structure including one or more domains (abstract; col.2, lines 23-62; 'data structure' reads on the claim 'an ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow ordered data structure as taught by Zawadzki. The motivation for the modification is to have the ordered data structure in order to provide an option to visit each of the domains in an order.

Surace further fails to teach "a grammar for accessing content from the ordered data structure". Zawadzki teaches inherently a grammar for generating specs from data structure (abstract; col.2, lines 23-62; 'generating' reads on the claim 'accessing', 'specs'

reads on the claim 'content' and 'data structure' reads on the claim 'an ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow a grammar for accessing content as taught by Zawadzki. The motivation for the modification is to have the grammar for accessing content in order to provide an option to visit each of the content of domains in an order.

Surace in view of Zawadzki further fails to teach "vocabulary comprising a plurality of terms, at least one term associated with at least one respective domain". Hemphill teaches vocabulary comprising a plurality of phrases, at least one phrase inherently associated with at least one respective World Wide Web (col.1, lines 44-67; col. 3, lines 46-65; 'phrases' reads on the claim 'terms' and 'World Wide Web' reads on the claim 'domain'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki to allow vocabulary comprising a plurality of terms as taught by Hemphill. The motivation for the modification is to have the vocabulary comprising a plurality of terms in order to provide the link to the specific domain for the user.

Surace in view of Zawadzki further in view of Hemphill further fails to teach "providing the user with a second option to hear content of the first domain". Rhie teaches providing the caller inherently to hear voice segments of retrieved web pages (col.3, lines 61-67, col.4, lines 1-20; 'caller' reads on the claim 'user with a second option' and 'voice segments of retrieved web pages' reads on the claim 'content of the first domain'). Thus, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill to allow the user to hear content as taught by Rhie. The motivation for the modification is to have the hearing option in order to get the content of domains.

Surace in view of Zawadzki further in view of Hemphill further fails to teach “a set of rules for visiting said one or more domains or for playing content therein, each rule corresponding to one or more respective terms”. Rhie teaches inherently a set of rules for playing voice segments of retrieved web pages or documents to the caller (col.3, lines 61-67, col.4, lines 1-20; ‘voice segments of retrieved web pages or documents to the caller’ reads on the claim ‘content therein, each rule corresponding to one or more respective terms’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill to allow the playing the content of the domains as taught by Rhie. The motivation for the modification is to have the playing option in order to provide the content of domains.

Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further fails to teach that a user profile comprising a user preference log for storing information about a user's preferences for accessing content in said one or more domains. Kuo teaches a user profile for storing preference information for a user (col.5, lines 10-28; ‘user profile’ reads on the claim ‘user profile comprising a user preference log’, ‘preference information for a user’ reads on the claim ‘information about a user's preferences for accessing content in said one or more domains’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie to allow a user profile for storing information as taught by Kuo. The motivation for the modification is to have the user profile for storing information in order to provide the information to the user whenever needed.

Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further fails to teach that a user profile comprising a user interaction history log for storing information about the user's history of interaction with the system. Kuo teaches a user profile for storing preference information for a user (col.5, lines 10-28; 'user profile' reads on the claim 'user profile comprising a user preference log' and 'preference information for a user' reads on the claim 'information about the user's history of interaction with the system'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie to allow a user profile for storing information as taught by Kuo. The motivation for the modification is to have the user profile for storing information in order to provide the information to the user whenever needed.

Surace in view of Zawadzki further in view of Rhie further in view of Kuo further fails to teach "a command provided at a recognition instance is processed against the terms included in the vocabulary for recognition, and if a match is found between the command and a term, then the respective domains in the ordered data structure are visited". Hemphill teaches a command provided at a recognition instance is inherently processed against the phrases included in the vocabulary for recognition, and if a match is found between the command and a phrase, then the respective World Wide Web are

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visited (col.1, lines 44-67; col. 3, lines 29-65; 'phrases' reads on the claim 'terms' and 'World Wide Web' reads on the claim 'domain in the ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Rhie further in view of Kuo to allow a command provided at a recognition instance as taught by Hemphill. The motivation for the modification is to have the command provided at a recognition instance in order to provide the link to the specific domain for the user.

However, Surace in view of Zawadzki further in view of Hemphill further in view of Kuo further fails to teach "the content of the respective domains is played in accordance with the rule corresponding to the matched term". Rhie teaches that the voice segments of retrieved web pages or documents are played (col.3, lines 61-67, col.4, lines 1-20; 'voice segments of retrieved web pages or documents' reads on the claim 'content of the respective domains' and 'played' reads on the claim 'played in accordance with the rule corresponding to the matched term'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Kuo to allow the playing the content of the respective domains as taught by Rhie. The motivation for the modification is to have the playing option in order to provide the content of domains.

However, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further fails to teach "a conversational style that dynamically changes based on information included in the user profile". Ito teaches that the conversational-type is adjusted (col.4, lines 24-64; 'conversational-type' reads on the claim 'a conversational style' and 'adjusted' reads on the claim 'dynamically changes

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based on information included in the user profile'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo to allow adjusting the conversational style as taught by Ito. The motivation for the modification is to have the adjustment in order to provide the modification of the talking mode.

Regarding claim 52, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further fails to teach that the user preference log includes information about the order of visiting one or more domains. Kuo teaches that a user profile stores preference information (col.5, lines 10-28; 'user profile' reads on the claim 'a user preference log' and 'stores preference information' reads on the claim 'includes information about the order of visiting one or more domains'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie to allow a user preference log for including information as taught by Kuo. The motivation for the modification is to have the user preference log for including information in order to provide the information to the user whenever needed.

Regarding claim 53, Surace teaches that if no commands are inherently provided by the user, then the WWW content is accessed (col.4, lines 25-36, col.15, lines 63-67, col.16, lines 1-35; 'user' reads on the claim 'user at a recognition instance', 'WWW content' reads on the claim 'domain' and 'accessed' reads on the claim 'visited automatically in the order provided in the user preference log'). However, Surace fails to teach "an ordered data structure including one or more domains". Zawadzki teaches data

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structure including one or more domains (abstract; col.2, lines 23-62; 'data structure' reads on the claim 'an ordered data structure'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace to allow ordered data structure as taught by Zawadzki. The motivation for the modification is to have the ordered data structure in order to provide an option to visit each of the domains in an order.

Regarding claim 55, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further fails to teach that the user interaction history log includes information about the user's experience level with the system. Kuo teaches a user profile for storing preference information for a user (col.5, lines 10-28; 'user profile' reads on the claim 'user interaction history log' and 'preference information for a user' reads on the claim 'information about the user's experience level with the system'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie to allow a user interaction history log for storing information as taught by Kuo. The motivation for the modification is to have the user profile for storing information in order to provide the information to the user whenever needed.

However, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further fails to teach "the conversational style is associated with a formality level that changes based on the user's experience level". Ito teaches that the conversational-type is adjusted (col.4, lines 24-64; 'conversational-type' reads on the claim 'conversational style is associated with a formality level' and 'adjusted' reads on the claim 'changes based on the user's experience level'). Thus, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo to allow changing the conversational style as taught by Ito. The motivation for the modification is to have the adjustment in order to provide the modification of the talking mode.

27. Claims 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Hemphill (U.S. Patent No. 5,774,628) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Kuo et al. (U.S. Patent No. 6,418,440) and further in view of Ito (U.S. Patent No. 5,029,085) and further in view of Loring et al. (U.S. Patent No. 6,195,641).

Regarding claim 48, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito fails to teach "at a recognition instance a subset of the vocabulary is searched, the subset including terms corresponding to the domain visited at the recognition instance". Loring teaches that at a recognition engine a subset of the central vocabulary list is inherently searched, the subset including data records corresponding to the usage domains (abstract; col.3, lines 21-67, col.4, lines 1-14; 'engine' reads on the claim 'instance', 'data records' reads on the claim 'terms', 'central vocabulary list' reads on the claim 'vocabulary' and 'usage domains' reads on the claim 'domain visited at the recognition instance'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito to allow search of a subset of the vocabulary

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being searched as taught by Loring. The motivation for the modification is to have the search for the subset of the vocabulary in order to provide the information of the usage domains.

Regarding claim 49, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito fails to teach “the vocabulary comprises a global vocabulary which is available at any recognition instance”. Loring teaches that the central vocabulary list comprises data records (abstract; col.3, lines 21-67, col.4, lines 1-14; ‘data records’ reads on the claim ‘a global vocabulary which is available at any recognition instance’ and ‘central vocabulary list’ reads on the claim ‘vocabulary’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito to allow the vocabulary comprising a global vocabulary as taught by Loring. The motivation for the modification is to have the vocabulary comprising a global vocabulary in order to provide different words utterance.

Regarding claim 50, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito fails to teach “the global vocabulary includes a term for accessing a first content in a respective domain”. Loring teaches that the data records inherently includes a term for accessing a first content in a usage domain (abstract; col.3, lines 21-67, col.4, lines 1-14, 44-54; ‘data records’ reads on the claim ‘global vocabulary’ and ‘usage domain’ reads on the claim ‘respective domain’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view

of Hemphill further in view of Rhie further in view of Kuo further in view of Ito to allow the global vocabulary including a term as taught by Loring. The motivation for the modification is to have the global vocabulary in order to provide the link to the specific domain.

Regarding claim 51, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito fails to teach "the global vocabulary includes a term for accessing a last content in a respective domain". Loring teaches that the data records inherently includes a term for accessing a last content in a usage domain (abstract; col.3, lines 21-67, col.4, lines 1-14, 44-54; 'data records' reads on the claim 'global vocabulary' and 'usage domain' reads on the claim 'respective domain'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito to allow the global vocabulary including a term as taught by Loring. The motivation for the modification is to have the global vocabulary in order to provide the link to the specific domain.

28. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Surace et al. (U.S. Patent No. 6,334,103) and in view of Zawadzki et al. (U.S. Patent No. 6,226,656) and further in view of Hemphill (U.S. Patent No. 5,774,628) and further in view of Rhie et al. (U.S. Patent No. 5,953,392) and further in view of Kuo et al. (U.S. Patent No. 6,418,440) and further in view of Ito (U.S. Patent No. 5,029,085) and further in view of Namma et al. (U.S. Patent No. 6,182,116).

Regarding claim 54, Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito fails to teach “monitors the domains visited by a user, and wherein if no command is provided at a recognition instance, an unvisited domain is visited”. Namma teaches displaying the screen of a WWW browser (abstract; col.24, lines 45-67, col.25, lines 1-29; ‘displaying’ reads on the claim ‘monitors’ and ‘screen of a WWW browser’ reads on the claim ‘domains visited by a user, and wherein if no command is provided at a recognition instance, an unvisited domain is visited’). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Surace in view of Zawadzki further in view of Hemphill further in view of Rhie further in view of Kuo further in view of Ito to allow monitoring the domains visited by a user as taught by Namma. The motivation for the modification is to have the monitoring of the domains in order to provide the information of the usage domains.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [fan.tsang@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

Any response to this action should be mailed to:

Box AF

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(703) 308-5397 (for formal communications intended for entry; please mark

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(703) **306-5406** (for informal or draft communications, such as proposed amendments

to be

discussed at an interview; please label such communications "PROPOSED" or

"DRAFT")

or hand-carried to:

Crystal Park Two

2121 Crystal Drive

Arlington, VA.

Sixth Floor (Receptionist)

Allan Hoosain
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PRIMARY EXAMINER
Fan Tseng